



Docket No.: 3013

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Knut. E. Rasmussen

Examiner: Venci, David J.

Serial No.: 09/857,132

Art Unit: 1641

Filed: May 29, 2001

Title: METHOD AND DISPOSABLE  
DEVICES FOR MICRO EXTRACTION

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Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

**REVISED BRIEF ON APPEAL**

This appeal is taken from a rejection of claims 42-47 of the hereinabove referenced patent application in a final Office Action mailed November 30, 2006; oral hearing is waived.

**REAL PARTY OF INTEREST**

The present application is presently not assigned.

**RELATED APPEALS AND INTERFERENCES**

There are no appeals or interferences on applications related to the present application.

**STATUS OF CLAIMS**

**Claims** (See Claims Appendix)

**Status**

1-41

Cancelled

**Appealed Claims** (See Claims Appendix)

**Status**

42 (Previously Presented)

Rejected under 35 U.S.C. 112, second paragraph.

42-47 (Previously Presented)

Rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 3,429,785 to Ross.

**STATUS OF AMENDMENTS**

No amendment has been made after the final rejection.

**SUMMARY OF CLAIMED SUBJECT MATTER**

In accordance with independent claim 42, the present invention is a method of micro extraction as illustrated in Figures 3A and 3B which includes (as set forth on page 11, paragraphs 2 and 3) providing a first container having a sample solution comprising a dissolved analyte and providing a second container with a membrane wall having fiber pores permeable by the analyte dissolved in the sample solution. The present invention further includes filling the second container with an acceptor solution, lowering the second container into the first container with the sample solution therein, and stirring the sample solution until equilibrium is established between analyte in the sample and analyte in the acceptor solution by passing of analyte through said membrane wall; and thereafter removing analyte enriched acceptor solution from said second container.

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

**INDEFINITENESS**

The Examiner has rejected claim 42 under 35 U.S.C. 112, second paragraph, as being indefinite because the passive voice recitation “equilibrium is established” is not clear.

**ANTICIPATION**

The Examiner has rejected claims 42-47 as being anticipated by U.S. 3,429,785 to Ross.

**GROUPING OF CONTESTED CLAIMS**

No request is made for separate consideration of the claims.

**ARGUMENT – INDEFINITENESS**

Claim 42 has been rejected by the Examiner under 35 U.S.C. 112, second paragraph as being indefinite because the passive voice recitation “equilibrium is established” is not clear. Specifically, the Examiner has stated that the identity of the object(s) and/or step(s), if any, required for performing “establishing” is/are not clear. Whether the objects and/or steps required for “establishing equilibrium” are co-extensive with the objects and/or steps required for “stirring” is not clear.

The Appellant respectfully traverses the Examiner’s rejection as follows:

The indefiniteness requirement of 35 U.S.C. 112 is essentially a requirement for precision and indefiniteness of claim language, so that the claims made clear what subject matter they

encompass and thus what the patent precludes others from doing. *In re Spiller*, 182 USPQ 614, 621 (CCPA 1974). See also *In re Johnson and Farnham*, 194 USPQ 187, 193 (CCPA 1977).

Relative to the precision requirement of 35 USC 112, the court in Georgia Pacifica Corp. v. U.S. Plywood Corp., 118 USPQ 112, 132 (2<sup>nd</sup> Circuit 1958) stated that:

“This requirement serves two primary purposes: those skilled in the art must be able to understand and apply the teachings of the invention and enterprise and experimentation must not be discouraged by the creation of an area of uncertainty as to the scope of the invention.”

The test for indefiniteness under 35 USC 112, is whether one of ordinary skill in the art would understand that which is claimed when the claim is read in the light of the specification. See Seattle Box Company v. Industrial Creating and Packing, 221 USPQ 568, 574 (Fed. Cir. 1984) and Burlington Industries, Inc. v. Quigg, 229 USPQ 916, 920 (D.C. 1986). See also Shatterproof Glass Corporation v. Libby Owens Ford Company, et al., 225 USPQ 634 (CAFC 1985).

Claim 42 defines as part of the method “stirring a sample solution until equilibrium is established between analyte in the sample solution and analyte in acceptor solution by passing of analyte through the membrane wall.” If there is any uncertainty in this phrase, as alleged by the Examiner, this uncertainty is inescapable and inherent of the subject matter involved.

In this regard, the court in Georgia Pacific continue to state:

If the claims, in the light of the specification, reasonably appraise those skilled in the art of both utilization and scope of the invention, and if the language is as precise as the subject matter allows, the courts can ask no more.

Thus, if there is uncertainty, it is inescapable and inherent of the subject matter. Further the existence of an inescapable area of uncertainty is not sufficient justification for denying to the

patentee the fruits of his invention.” Georgia Pacific Corp v. U.S. Plywood Corp., 118 USPQ 112, 132 (2<sup>nd</sup> Cir. 1958).

The Examiner is simply ignoring the fact that the claims must be interpreted in light of the specification and solid basis and description of a method of the present invention appears in the original specification on page 9, first full paragraph, wherein a specific example is set forth .

Based upon these facts, the Examiner’s rejection of claim 42 under 37 USC 112, second paragraph, cannot be supported.

Moreover, the Appellants respectfully bring to the board’s attention that the fact that claim 42 has been rejected on both an indefiniteness and anticipation rejection, despite case law having made it clear that both rejections cannot exist at the same time. *Ex parte Head*, 212 USPQ 551, 553 (PTO Board of Patent Appeals 1981). See also *Ex parte Wu*, 10 USPQ 2031 (PTO Board of Patent Appeals 1989) The logic of the Head decision is obvious: “If a claim is so indefinite that one of ordinary skill in the art cannot determine what is being claimed, then how can the same invention be anticipated.” To alleged both indefiniteness and anticipation at the same time, as the Examiner does here, is contrary to logic and also contrary to case law.

It is, therefore, respectfully submitted that the facts do not support a finding of indefiniteness and the reversal of the Examiner’s rejection regarding claim 42 as being indefinite under 35 USC 112, second paragraph, is respectfully requested.

#### **ARGUMENT – ANTICIPATION – CLAIMS 42-47**

Claims 42-47 have been rejected by the Examiner under 35 USC 102(b) as being anticipated by U.S. 3,429,785 to Ross.

In this rejection, the Examiner states that Ross describes a method comprising the steps:

(1) providing a first container (see Figure 6, container comprising test solution 72) having a sample solution (see Figure 6, test solution 72) comprising a dissolved analyte (see Abstract, “ionic species”);

(2) providing a second container (see e.g., Figure 1, ion sensitive electrode 20) with a membrane wall (see e.g., Figure 1, membrane 22) having fiber pores (see e.g., column 5, lines 17-18, “porous polyethylene”);

(3) filling the second container with an acceptor solution (see e.g., Figure 1, ion exchanger liquid 24);

(4) lowering the second container into the first container (see Figure 6, container comprising ion sensitive electrode 50);

(5) stirring the sample solution (see column 8, lines 8-9, “[s]teady state conditions of potential were established”);

(6) removing analyte enriched acceptor solution (see column 8, lines 10-11, “moving the electrode”).

In traverse of this rejection, the applicants submit that anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of the claimed invention. RCA Corp. v. Applied Digital Data Systems, Inc., 221 USPQ 385 (Fed. Cir. 1984); *In re Sun*, 31 USPQ 2d 1451 (CAFC 1993); Advanced Display Systems, Inc. v. Kent State University, 540 USPQ 2d 1673 (CAFC 2000).

Further, the Examiner must identify wherein each and every facet of the claimed invention is disclosed in the applied reference. *Ex Parte Levy*, 17 USPQ 2d 1461 (USPTO Board of Patent Appeals and Interferences 1990).

In addition, the Applicants submit that anticipation must meet strict standards and unless all of the same elements are found in exactly the same situation and united in the same way to form identical function in a single prior art reference, there is no anticipation. Tights, Inc. v. Acme-McCary Corporation, et al., 191 USPQ 305 (CAFC 1976).

As presently claimed, the method in accordance with the present invention includes stirring the sample solution until equilibrium is established between analyte in the sample solution and analyte in the acceptor solution by passing a analyte through a membrane wall. Clearly, this step is not taught or suggested by the Ross reference.

Ross teaches an organic liquid ion-exchange electrode. Figure 6 relied on by the Examiner is directed to a water-hardness tester utilizing ion sensing electrode 50, reference electrode 56 disposed in a test solution 72.

First, there is no suggestion of stirring the sample solution since the operation of the apparatus is by electrolysis.

Second, there is no equilibrium established between analyte and the sample solution and analyte in the acceptor solution by passing of analyte through a membrane wall as presently claimed. In fact, in Figure 6 only illustrates one test solution.

Accordingly, since all of the elements in the present invention are not taught, suggested, or even hinted in the Ross reference, a rejection under 35 USC 102(b) is not sustainable.

In conclusion, the Appellant submits that the Examiner has not made a prima facie case of anticipation under 35 USC 102(b) for claims 42-47 based upon Ross.

In view of the arguments hereinabove set forth, it is submitted that each of the claims now in the application define patentable subject matter not anticipated by the art of record and not obvious to one skilled in this field who is aware of the references of record. Reversal of the Examiner's rejections is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'W. A. Hackler', with a long horizontal flourish extending to the right.

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CLAIMS APPENDIX

Claims 1-41 have been cancelled.

42. (Previously Presented) A method of micro extraction, said method comprising the steps of:

providing a first container having a sample solution comprising a dissolved analyte therein;

providing a second container with a membrane wall having fiber pores permeable by the analyte dissolved in said sample solution;

filling the second container with an acceptor solution;

lowering the second container into the first container with the sample solution therein;

stirring the sample solution until equilibrium is established between analyte in said sample solution and analyte in said acceptor solution by passing of analyte through said membrane wall; and

removing analyte enriched acceptor solution from said second container.

43. (Previously Presented) The method according to claim 42 further comprising the step of impregnating said fiber pores with a liquid before lowering said second container into said first container.

44. (Previously Presented) The method according to claim 42 wherein the step of lowering a second container into said first container comprises lowering a tubular microporous fiber into said first container.

45. (Previously Presented) The method according to claim 44 wherein the step of lowering a tubular fiber comprises lowering a closed end fiber into said first container.

46. (Previously Presented) The method according to claim 44 wherein the step of lowering a tubular fiber comprises lowering a center portion of a tubular fiber having two open ends into said first container.

47. (Previously Presented) The method according to claim 44 wherein the step of filling an

acceptor solution into the second container comprises the step of filling the second container with an acceptor solution having a pH for ionizing the analyte to prevent ionized analyte from passing from said acceptor solution through the membrane wall and into the sample solution.

Claims 48-61 cancelled.

**EVIDENCE APPENDIX**

**NONE**

**RELATED PROCEEDINGS APPENDIX**

**NONE**